

100832-66 EJT(a)/EXP(v)/EXP(k)/EXP(n)/EXP(l)
ACCESSION NR: AP5015904

UR/0103/65/026/006/0995/1004
62-503.53

AUTHOR: Barbashin, Ye. A. (Sverdlovsk); Gerashchenko, Ye. I. (Sverdlovsk)

TITLE: Principle for synthesizing stabilization systems

SOURCE: Avtomatika i telemekhanika, v. 26, no. 6, 1965, 995-1004

TOPIC TAGS: automatic control, automatic control design, automatic control system,
automatic control theory

ABSTRACT: The successive reduction of the phase-space order is suggested as a principle of stabilization. The imperfect sliding is considered which is characterized by fast movements of the state point in the neighborhood of a discontinuity surface. By neglecting these fast movements and considering only slow migration of the state point, the imperfect-sliding process is reduced to a perfect-sliding process describable by a lower-order equation. The principal set of differential equations is regarded, too, as a set describing the imperfect sliding. By neglecting the fast movements, a set describing the first-order sliding is obtained. By separating fast and slow movements in the new set, a $(n-2)$ -order set describing the second-order sliding is obtained, and so on. Formulas for the 1st and 2nd and m -order slidings are derived. Orig. art. has: 2 figures and 37 formulas.

Card 1/2

L00832-66

ACCESSION NR: AP5015904

ASSOCIATION: none

SUBMITTED: 28Aug64

ENCL: 00

SUB CODE: DP, IE

NO REF SOV: 004

OTHER: 000

[Signature]
Card 2/2

BARBASHOV, N. I.

PA 45/49T3

USSR/Academy of Sciences
Scientific Ideology

Mar 49

"In the Section for the Scientific Development of
Water Economy Problems," N. I. Barashov, 2 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3

Members of this section met 28 Oct 48 to hear a
lecture by A. N. Akhutin, "Activities of the Insti-
tute in the Light of the Resolutions of the
Presidium, Academy of Sciences, on the State and
Tasks of Biological Science in Institutes and
Enterprises of the Academy of Sciences USSR."
Meeting was attended by 100 members who heard about
six reports on various activities of the section.

45/49T3

1949

BARBASHOVA, A.I.

USSR/Human and Animal Physiology - Respiration.

T-7

Abstr Jour : Ref Zhur - Biolog., No. 10, 1958, 46125

Author : Barbashova, A.I.

Inst : AS USSR

Title : Reactions to Acute and Chronic Hypoxia in Rats with
Removed Sympathetic Nodes of the Superior Cervix.

Orig Pub : Dokl. AN SSSR, 1057, 115, No 2, 414-417

Abstract : Experiments performed on 33 rats in whom the superior
cervical sympathetic nodes and cervical sympathetic nerves
were removed (2 days to 2 weeks before the experiments
..... found that when

USSR/Human and Animal Physiology - Respiration.

T-7

Abs Jour : Ref Zhur - Biol., No 10, 1953, 46126

thyroid glands, the reaction of rats to acute hypoxia was not changed. The condition of an acute hypoxia was produced by placing the rats under the head cap of a vacuum pump where a rarefaction of air up to 123 mm of the mercurial column was effected. Neither did such exclusions prevent acclimatizations to chronic oxygen hunger when the animals were kept in a barochamber at a pressure of 280 mm of the mercurial column for 4 hours daily for the length of one month. M.F. Chelyavagina.

Card 2/2

- 67 -

BARBASHOVA, F.I.

USSR/Morphology of Man and Animals (Normal and Pathologic).
The Musculature.

S-5

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17101
Author : Barbashova, F.I., Ginetsinskiy, A.G.
Inst : -
Title : The Influence of Acclimatization upon Intravital Colorability of the Tissues.
Orig Pub : V sb.: Materialy po evolyuts. foziologii. M.-L., AN SSSR, 1956, I, 36-40

Abstract : A study was made of the skeletal muscles of rats and mice that had been acclimatized to oxygen starvation. It was determined by means of vital staining with neutral red that in the isolated muscles of acclimatized animals that had been poisoned with potassium cyanide, ethyl alcohol or caffeine, paranecrosis developed more slowly than in muscles removed from _____.

BARBASHOVA, G.I.

Optimal conditions for the saponification of oxidized paraffin oil in the manufacture of carboxylic acids. A. I. Laptev and G. I. Barashova. *J. Applied Chem. (U.S.S.R.)* 10, 2013-2016 (in German 2(2) 111-112). An oxidized paraffin oil, having an acidity coeff. 25.3 and a sapon. coeff. 7.0, was used in the expts. The optimal conditions for sapon. are an alkali soln. of 5% Na in any excess not over 10%; duration of the sapon. 1 hr.; use of a mech. stirrer and temp. of 90°. Settling of oil from soap soln. proceeds satisfactorily at acid concns. (in the soln. free from oil) up to 40%. Addn. of high-boiling ales in the amt. of 3% by wt. of oil or 1% of *d*-naphthol decreases further the sapon. coeff. of oil to 2.9 and 2.5, resp., whereas under an optimal condition but without use of the above substances it never decreases below 1.9. Unsapon. substances are ester-like substances, which have a small sapon. coeff. (about 120-130) and high mol. wt., and probably, have no value for soap manuf.

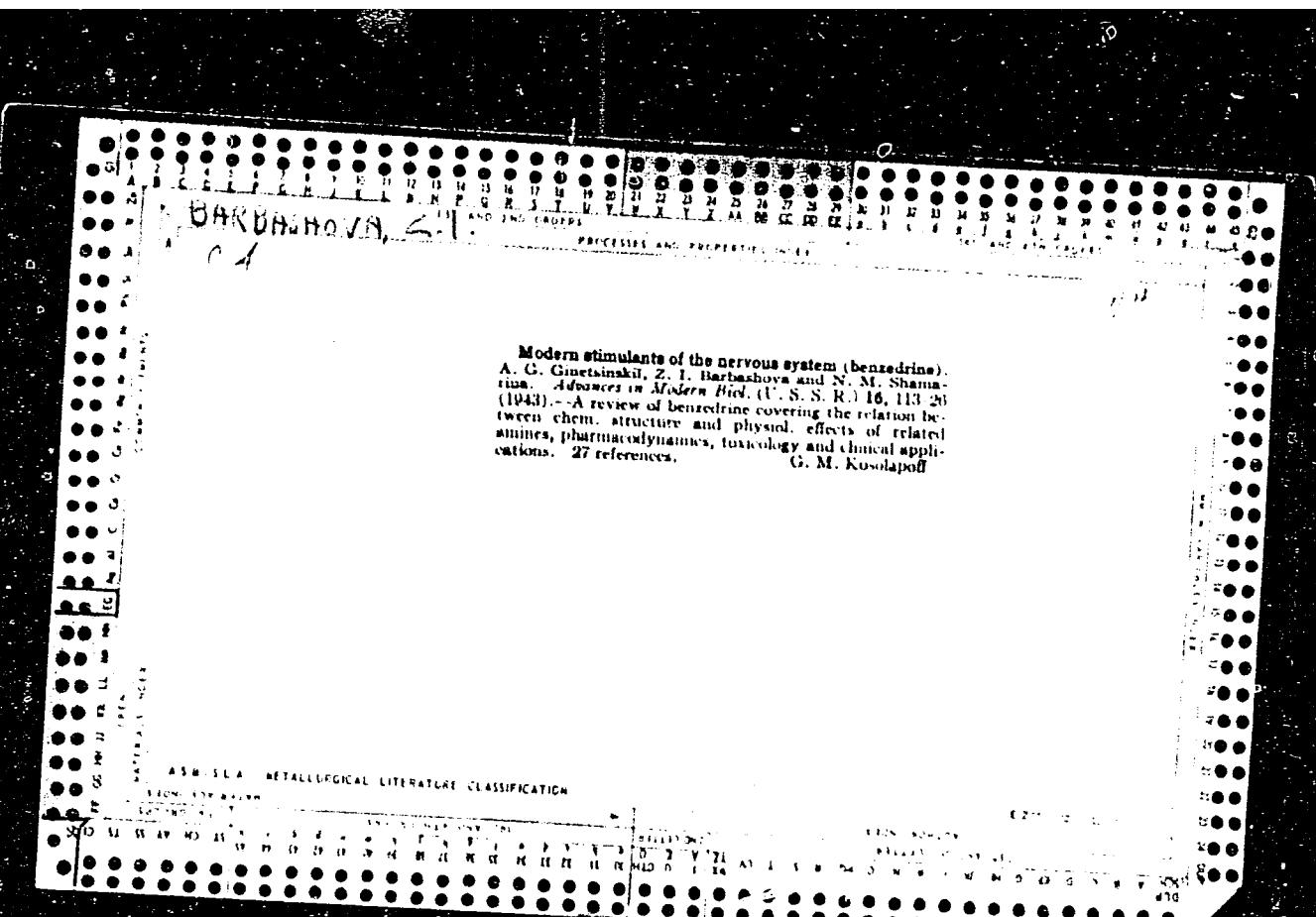
A. A. Pichovay

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

BARBASHOVA, Z. I.

"Contribution to the Study of Acclimatization to Low Oxygen Pressures" (p. 226).
by Barbashova, Z. I. (Moscow, 1941) and reviewed by Ado, A. D.

SG: Advances in Contemporary Biology (Uspekhi Sovremennoi Biologii) Vol. 17, 1954, No. 2



GINETSINSKIY, A.G.; BARBASHOVA, Z.I.

New hypothesis about the physiological importance of acetylcholine.
Trudy fiziol. inst. 4:149-156 '49.
(ACETYLCHOLINE) (MLRA 9:5)

BARBASHOVA, Z.I.

Activity of cytochrome oxidase in tonic, nontonic, and denervated muscles. Trudy fiziol. inst. 4:299-304 '49. (MIRA 9:5)
(MUSCLE) (CYTOCHROME OXIDASE)

BARBASHOVA, Z. I.

USSR/ Medicine - Physiology

Card 1/1 Pub. 22 - 48/51

Authors : Barashova, Z. I.

Title : ~~Barashova, Z. I.~~
Acclimatization to hypoxia and its effect on the process of radiation disease

Periodical : Dok. AN SSSR 101/2, 379-381, Mar 11, 1955

Abstract : Experiments were conducted on white mice and rats to determine whether preliminary acclimatization of the animal to chronic hypoxia will serve as a prophylaxis against radiation disease (exposure to Co⁶⁰ gamma rays). Results showed that proper acclimatization to hypoxia reduces the death rate of rodents exposed to gamma radiation and also reduces the rate of weight loss. Table; graphs.

Institution : Acad. of Sc. USSR, Group for Individual Work of Academician L. A. Orbeli

Presented by : Academician L. A. Orbeli, June 14, 1954

EXCERPTA MEDICA Sec 14 Vol.10/9 Radiology Sept 56

1502. BARBASHOVA Z.I. "Effect of hypoxia on resistance of the organism to ionizing radiations DOKLADY AKAD. NAUK SSSR 1955, 102/6 (1219-1221) Graphs 1 Tables 3 (Russian text)
Twenty-nine adult white mice were placed in a barometric chamber and subjected to a pressure of 267 mm. Hg for 10 min. (simulated altitude of 8,000 m.). After exposure the animals were irradiated for 3 hr. with Co⁶⁰-γ-rays (total dose 690 r). In another series of experiments the order of treatment was reversed, i.e. the irradiation was performed before exposure to reduced pressure (corresponding to 6,000 m. altitude, 28 animals). Controls (30 animals) were irradiated without previous or subsequent exposure to reduced pressure. Observations for 60 days following the irradiation were concerned with time of survival, loss of body weight, general condition and resistance to hypoxia imposed 12 days after irradiation. All of these were worse with animals exposed to reduced pressure than with the controls; irradiation before pressure treatment produced the more severe effects. Consequently, in contrast to earlier claims, a hypoxic condition imposed immediately before or after irradiation not only has no beneficial effect upon the course of the 'radiation sickness', but distinctly aggravates all its manifestations.

Fuks - Sarajevo (II, 1)

Laboratoriya evolyutsionnoy fiziologii Akademii nauk SSSR. Predstavleno akademikom L. A. Orbeli 17/2/55

The metabolic processes of horses acclimatized to oxygen hunger. Z. I. Barbashova. *Mikrobiol. po Poloskif.* Finist. (Moskov.-Leningrad. Akad. Nauk S.S.R.) Seriya 1, 12-46 (1958). *Referat. Zhur. Khim. Biol. Khim.* 1957, No. 5132.—Brain, heart, kidney, and muscle tissues were acclimatized to an atmosphere of low O tension; the consumption of O by such tissues under these conditions consumed twice as much O as the same type of tissues taken from control animals. The cytochrome oxidase extracted from the tissues of hypoxia-acclimatized animals (rats and mice) showed a higher activity under conditions of hypoxia; under conditions of higher O tension the brain, heart, kidney, and muscle extracts of the cytochrome oxidase possessed the same intensity of activity as similar extracts from the tissues of the control animals. The content of cytochrome c of the muscles of white rats acclimatized to hypoxia conditions remained within the normal limits. In the process of acclimatization to the condition of hypoxia the anaerobic glycolysis of the brain tissue of white rats increased by 78%, in the muscle tissue by 44%, as compared with the normal. The anaerobic glycolysis of the kidneys retained its normal intensity. The tissues showed the property of adjusting to hypoxia.

B. S. Levine

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103530012-6

Barbashova, Z.I.

BARBASHOVA, Z.I.; GINETSINSKIY, A.G.

Effect of acclimatization on the staining of living tissues. Mat.
po evol.fiziol. 1:36-40 '56. (MIRA 11:1)
(ACCLIMATIZATION)
(STAINS AND STAINING (MICROSCOPY))
(ANOXEMA)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103530012-6"

BAR BASHOVA, Z. I.

9079

ON THE MECHANISM OF THE PROPHYLACTIC ACTION
OF CHRONIC HYPOXIA UPON RADIATION SICKNESS. Z. I.
Barbashova (Laboratory of Evolutionary Fiziology).

Doklady Akad. Nauk S.S.R. 107, 761-4 (1956) Apr. 11. (In
Russian)

Preliminary acclimatization of rats to chronic hypoxia increases their resistance to ionizing radiation. Comparative evaluations were made to determine the functions of various systems in irradiated animals, acclimatized to hypoxia, and in control animals. Data describing the activity of compensation reactions and the general tendencies of oxidation processes in irradiated organisms are discussed. The activity of the compensation reactions was detected by the resistance intensity to strong hypoxia. The consumption of oxygen during radiation sickness was studied to determine the character of oxidation processes. The investigations were made on male rats weighing 230 to 310 g. The rats were kept under 490 mm Hg barometric pressure at 7600 m "elevation". The weight, the consumption of oxygen, and the resistance to strong hypoxia were checked in acclimatized rats and in control ones after their exposure to γ rays from Co⁶⁰. The rats were given 1016r at the rate of 3.7r per minute. Resistance to hypoxia was determined during the most active period of radiation sickness. (R.V.J.)

*BARBASHOVA, Z.I.*AUTHOR
TITLE

BARBASHOVA, Z.I.

20-2-60/62

The Response to Acute and Chronic Hypoxia in Rats upon
the Removal of Upper Jugular Sympathetic Ganglia.(Reaktsiya na ostruyu i khronicheskuyu gipoksiyu u krys s
udalennym veridimimi shaynymi simptozami uzlami. - Russian)

PERIODICAL

Doklady Akademii Nauk SSSR 1957 Vol 115, Nr 2, pp 414-417
(U.S.S.R.)

ABSTRACT

The role of the sympathetic nerve system in adaptive reactions to need of oxygen is, as we know, extremely important. In the case of hypoxia the stimulation of this system is increased. Finally this leads to a concentration of erythrocytes on the blood, to an increase of blood pressure, and to an activation of heart activity. All these are adaptive reactions directed to a better supply of the tissue with oxygen. The importance of the sympathetic system is experimentally proved by the fact that hypoxia is much more dangerous for sympathectomated animals (cats) than for normal animals. Dogs, however, retain their resistance against hypoxia also after sympathectomy. This difference was explained by physiological characteristics of these two kinds of animals. It was important to explain also the role of the sympathetic system in the adaption process to a craving for oxygen. The author had cut out various parts of the

CARD 1/3

20-2-60/62

The Response to Acute and Chronic Hypoxia in Rats upon
the Removal of Upper Jugular Sympathetic Ganglia.

sympathetic nerve system. Reaction to acute hypoxia: With sexually mature white rats no clear differences of reaction between gangiectomated and control animals could be found. This refers to the duration of surviving in a "height" of 13.000 m as well as to the character of the reaction itself. The only difference was the increased protruding of the eyes of the test animals. Reaction to chronic hypoxia: During their stay in the Baro chamber the gangiectomated rats differed in no respect whatever from control animals. The stimulation of the respiratory and blood formation system during training in the chamber was constant and served as a symptom of the adaption performed. The gangiectomated animals could stay much longer in a "height" of 13.000 m than those not adapted. During adaption a greater flexibility of the respiratory system is acquired. Adapted animals also have less and less intense convulsions of the body. The rats sat in a normal position and did not stretch out on the floor. A criterion of the resistance offered by the organism was its resistance against ionized irradiation. The operated animals were more resistant after their adaption than those not adapted. Their death rate was lower and radiation disease took a milder form. As a result the author stated that extirpation of the upper

CARD 2/3

The Response to Acute and Chronic Hypoxia in rats upon
the Removal of Upper Jugular Sympathetic Ganglia. 20-2-60/62

Sympathetic jugular ganglia of rats did not enhance their reaction to acute hypoxia and did not hamper the process of adaption to chronic need of oxygen.
(2 illustrations and 2 Slavic references)

ASSOCIATION: Institute of Evolutionary Physiology im. I.M. Sechenov
Academy of Sciences of the USSR, March 15, 1957
(Institut evolyutsionnoy fiziologii im. I.K. Sechenova)
Akademii nauk SSSR

PRESENTED BY: L.A. Orbeli, member of the Academy.

SUBMITTED: March 13, 1957

AVAILABLE: Library of Congress.

CARD 3/3

USSR/Human and Animal Physiology - The Nervous System.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18547 v-8
Author : Z.I. Barbashova
Inst : The P.F. Lesgaft Institute of Natural Science.
Title : The Response to Hypoxia in Animals with Cerebellar Damage.
Orig Pub : Isv. Estestv.-nauchn. in-ta im. P.F. Lesgafta, 1957, 28,
159-168

Abstract : The cerebella of rats were either removed or damaged. The resistance to acute hypoxia of the animals was reduced following the operation. After prolonged acclimatization, however, compensatory changes appeared with respect to respiratory frequency and an increase in erythrocyte count. Thus with a long period of training cerebellar damage did not eliminate the animals' adaptation to hypoxia.

Card 1/1

BARBASHOVA, Z.I.

Role of splanchnic nerves and the abdominal sympathetic branches
in reactions to acute and chronic types of hypoxia in rats [with
summary in English]. Fiziol. zhur. 45 no.2:163-170 F '59.

1. From the I.M. Sechenov Institute of Evolutionary Physiology,
Leningrad. (MIRA 12:3)

(SYMPATHETIC NERVOUS SYSTEM, physiol.
eff. of abdominal sympathetic & splanchnic denervation
on reaction of rats to anoxia (Rus))
(ANOXIA, exper.
same)

BARBASHOVA, Z.I.; GRIGOR'YEVA, G.I.; YERMILOVA, V.V.; FOMINA, Z.G.

Contribution to a study of the effect of the nervous system on
hypoxic erythrocytosis. *Fiziol.zhur.SSSR* 45 no.7:856-864 Jl
'59.

(MIRA 13:4)

1. From the U.S.S.R. Academy of Sciences I.M. Sechenov Institute
of Evolutionary Physiology, Leningrad.
(POLYCYTHEMIA physiology)
(SYMPATHETIC NERVOUS SYSTEM, physiology)

PHASE I BOOK EXPLOITATION

SOV/4065

Barbashova, Zoya Ivanovna

Akklimatizatsiya k gipoksii i yeye fiziologicheskiiye mekhanizmy (Acclimatization to Hypoxia and Its Physiological Mechanisms) Moscow, 1960. 215 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut evolyutsionnoy fiziologii imeni I.M. Sechenova.

Ed. of Publishing House: N. V. Natarova; Resp. Ed.: A.G. Ginetsinskiy; Tech. Ed.: R. Ye. Zendel'.

PURPOSE: This book is intended for physicians and physiologists working in the field of aviation medicine and the physiology of sport, and for clinical physicians.

COVERAGE: In the book a study is made of the adaptive changes in the tissues of animals protractedly exposed to reduced partial oxygen pressure in respiratory air. The role of the nervous system and the humoral system in regulating the

Card 1/4

Acclimatization to Hypoxia (Cont.)

SOV/4065

acclimatization process is treated. The mechanisms of adapting an organism to an environment under conditions of hypoxidosis of varied origin are analyzed. The author states that in the development of the ideas contained in the book he drew heavily upon the experience of Ye.M. Kreps, A.G. Ginetsinkiy, and Academician Leon Abgarovich Orbeli. There are 659 references: 349 Soviet, 248 English, 39 German, 20 French, 2 Italian, and 1 Spanish.

TABLE OF CONTENTS:

Foreword

Ch. I. Mechanisms of Acclimatization to Hypoxia	5
The struggle for oxygen	7
Adaptive reactions for maintaining constant partial oxygen pressure in the blood (reactions of the first kind)	7
Adaptive reactions for increasing the utilization of oxygen by the tissues (reactions of the second kind)	7
Adaptation of the tissues to the environment during low partial oxygen pressure	14

Card 2/4

Acclimatization to Hypoxia (Cont.)

SOV/4065

Strengthening the anaerobic processes of energy exchange (reactions of the third kind)	50
Increasing the general resistance of the tissues (reactions of the fourth kind)	58
Sequence of forming adaptive reactions during the continuous action of hypoxia	58
Specific and nonspecific characteristics of acclimatization to hypoxia	79
Ch. II. Regulating the Process of Acclimatization to Hypoxia	84
Participation of the nervous system in the reaction to hypoxia	95
Afferent part of the reflex arc	97
The central part of the reflex arc	98
The efferent part of the reflex arc	101
Participation of the humoral factors in the reaction to hypoxia	113
Sexual glands	131
Thyroid gland	133
Hypophysis	133
Suprarenal glands	135
Card 3/4	137

Acclimatization to Hypoxia (Cont.)

SOV/4065

*On the problem of regulating red sanguification in the process of
acclimatization to hypoxia*

Conclusion	156
Bibliography	173
AVAILABLE: Library of Congress (QP177.B3)	180

Card 4/4

AC/rn/lsb
8-15-60

BARBASHOVA, Z.I.; FOMINA, Z.G.

Role of splanchnic nerves and abdominal sympathetic chains in the
reaction of rats to penetrating radiation. Mat. po evol. fiziol.
4:247-253 '60.

(MIRA 13:10)

(NERVOUS SYSTEM, SYMPATHETIC) (RADIATION SICKNESS)

BARBASHOVA, Z.I.; GRIGOR'YEVA, G.I.

Reactions to gamma rays in rats with demedullated adrenal glands.
Med. rad. 5 no.9:8 1/4 S '60.

(MIRA 13:12)

(RADIATION-PHYSIOLOGICAL EFFECT)
(ADRENAL GLANDS)

BARBASHOVA, Z.I.; MOSKALENKO, Yu.Ye.

Changes in the electric parameters of skeletal muscle tissues
in animals acclimatized to hypoxia. Biofizika 6 no.3:328-330
'61. (MIRA 14:6)

1. Institut evolyutsionnoy fiziologii imeni Sechenova AN SSSR,
Leningrad.

(MUSCLE) (ANOXEMIA) (ELECTROPHYSIOLOGY)

BARBASHOVA, Z.I.; VASIL'YEVA, V.V.

Resistance of muscle and brain tissues to the action of alternating
agents of some representatives of vertebrate animals. Fiziol. zhur.
48 no.3:337-341 Mr '62.
(MIRA 15:4)

1. From the I.M. Sechenov Institute of Evolutionary Physiology,
Leningrad.

(BRAIN) (MUSCLE)

ACCESSION NR: AT4042656

S/0000/63/000/000/0068/0072

AUTHOR: Barbashova, Z. I.

TITLE: Increasing the resistance of the organism to space flight stresses

SOURCE: Konferentsiya po aviationskoy i kosmicheskoy meditsine, 1963.
Aviationskaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 68-72

TOPIC TAGS: organism resistance, spaceflight stress, hypoxia, noise, vibration, weightlessness, acceleration, training, chemical agent, antistress drug

ABSTRACT: The author discusses the need to increase man's resistance to hypoxia and such space flight stresses as vibration, weightlessness, and acceleration through selective training and the rational use of chemical and pharmacological agents. He suggests that nonspecific resistance to stress is acquired not only on the cellular level but on the system level as well. Therefore, it is important to take into consideration that no one training regimen or agent will necessarily lead to a change in nonspecific resistance to stress. It is necessary to consider the character and impact of a training agent on the subject as well as its

Card 1/2

ACCESSION NR: AT4042656

frequency and duration of application. It is concluded that only a rational and versatile approach to conditioning against the stresses of space flight will lead to increased nonspecific resistance to them.

ASSOCIATION: none

SUBMITTED: 27Sep63

NO REF SOV: 000

ENCL: 00

SUB CODE: LS

OTHER: 000

Card
2/2

DARPA/DOE, 1966

Comparing the two methods of the synthesis and the use of
radioactive isotopes of phosphorus, p. 19, no. 4; 28.63, May 1966.

In: Proc. International Institute of Radiopharmaceutical Physicsology, Leningrad. (MIA 17:11)

L 12610-63

A/DD

ACCESSION NR: AP3001502

EWT(1)/BDS/ES(a)/ES(b)/ES(c)/ES(k) AMD/AFFTC Pb-4

S/0239/63/049/005/0626/0631

AUTHOR: Barbashova, Z. I.

61

60

TITLE: Correlation between body resistance and erythrocyte osmotic resistance

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 49, no. 5, 1963, 626-631

TOPIC TAGS: erythrocyte shell, tissue resistance, blood hemolysis, hypoxia
adaptation, body resistance, erythrocyte osmotic resistance, hypoxia

ABSTRACT: It was established in recent years that animals adapted to hypoxia have more resistant tissues (muscular, reticulo-endothelial, and brain gray matter). The author investigates the resistance of another type of tissue, the erythrocyte shell, to determine whether its resistance changes under hypoxic conditions. Rats used in the experiment were adapted to hypoxia by training for a month in a decompression chamber where air rarefaction corresponded to an altitude of 2500 m and was gradually increased to correspond to 7600 m of altitude. Then each rat was placed under a vacuum pump bell jar in which air rarefaction corresponded to 13,000 m of altitude for 5 min. If the rat was overcome with a spasmadic seizure, air was immediately rushed into the bell jar. The rats

Card

1/2

L 12610-63
ACCESSION NR: AP3001502

considered most resistant were those who endured 5 min at the simulated altitude of 13,000 m without spasms or sharp disturbance of muscular tone and who had rapid but rhythmic breathing with no gasping. After 24 hrs or more erythrocyte resistance was determined by evaluating the degree of blood hemolysis. Fig. 1 shows percentage change in degree of blood hemolysis with different concentrations of sodium chloride in the solution. The author finds that erythrocyte osmotic resistance of rats adapted to hypoxic conditions is higher than that of control rats. The author concludes that the direct correlation between entire body resistance and erythrocyte osmotic resistance indicates that increased body resistance resulting from adaption to hypoxia is also accompanied by increased tissue resistance including erythrocyte shells. More data on the problem may be useful in treating blood diseases. Orig. art. has: 2 figures, 1 table.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova AN SSSR,
Leningrad (Institute of Evolutionary Physiology AN SSSR)

SUBMITTED: 13Dec62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: AM

NO REF Sov: 008

OTHER: 001

Card 2/2

L 15138-65 EWG(j)/EWG(r)/EWT(l)/FS(v)-3/EG(v)/EG(a)/EWG(c) Pe-5 AMD/
AFTC(b) DD
ACCESSION NR: AP4049166

S/0239/64/050/011/1385/1392

AUTHOR: Barbashova, Z. I.

TITLE: Mechanism of increasing erythrocyte osmotic resistance in
hypoxic-conditioned rats

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 11, 1964,
1385-1392

TOPIC TAGS: hypoxia conditioning, rat, osmotic resistance, hemolysis
rate, blood count, erythrocyte resistance

ABSTRACT: Literature sources offer three hypotheses to account for increased erythrocyte osmotic resistance in hypoxic-conditioned rats:
1) blood enrichment with more resistant younger blood cells,
2) the appearance of certain properties characteristic of newborn blood including reduced resistance to alkali, and 3) a unidirectional shift of the entire erythrocyte mass as a result of physicochemical changes in blood properties. To determine the

Cord 1/4

L 15138-65

ACCESSION NR: AP4049166

validity of these hypotheses, the present study investigated the osmotic, saponin, and alkaline hemolysis of erythrocytes and the quantitative and qualitative composition of red blood in hypoxic conditioned white male rats (200 — 250 g). Erythrocyte osmotic resistance was determined by the degree of blood hemolysis in sodium chloride solutions. Erythrocyte alkaline resistance was determined by the hemolysis rate for an erythrocyte suspension in an isotonic alkaline buffer. Erythrocyte saponin resistance was determined by first measuring the optical density of blood mixed with a physiological solution with a photoelectrocolorimeter and then measuring the optical density after the addition of saponin solution. Saponin hemolysis was considered complete with stabilization of optical density values. Hemoglobin, erythrocyte, and reticulocyte counts were determined by standard methods. Findings do not support the first hypothesis that erythrocyte osmotic resistance in hypoxic-conditioned rats is the result of blood enrichment with younger and more resistant cells. Nonconditioned rats with higher hemopoiesis and more enriched blood do not display increased erythrocyte osmotic resistance; also, the saponin hemolysis rate does not increase in hypoxic-conditioned rats despite a significant increase in young red blood cells. The second

Card. 2/4

L 15138-65

ACCESSION NR: AP4049166

hypothesis that certain blood properties characteristic of newborn blood are responsible for increased erythrocyte osmotic resistance is also not valid. The alkaline hemolysis rate in hypoxic-conditioned rats, kept at 20 and 31°C, completely coincided with the rate for control animals. Increased erythrocyte osmotic resistance apparently can be explained by the third hypothesis, that of a unidirectional resistance shift of the entire erythrocyte mass related to physicochemical changes of blood properties. Though the nature of these changes is not known, it is interesting to note that increased erythrocyte osmotic resistance is not observed under action of alkali or saponin, but only when the osmotic pressure of the medium is changed. Increased erythrocyte osmotic resistance appears to be an adaptive reaction and a part of the general mechanism which increases body resistance. If increased erythrocyte osmotic resistance is actually a component of the general mechanism for increasing body resistance in hypoxia conditioning and decreased erythrocyte osmotic resistance is an indication of unfavorable conditioning, physicians may use erythrocyte osmotic resistance as an index for checking conditioning progress. Orig. art. has: 4 figures and 1 table.

Cord3/4

L 15138-65

ACCESSION NR: AP4049166

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova
AN SSSR, Leningrad (Institute of Evolutionary Physiology, AN SSSR)

SUBMITTED: 30Nov63

ENCL: 00

SUB CODE: LS

NO REF Sov: 008

OTHER: 001

ATD PRESS: 3144

Card 4/4

L 13382-66

EWT(1)/FS(v)-3

SCTB

DD

SOURCE CODE: UR/0385/65/001/006/0571/0576

ACC NR: AP6002682

L 13382-66

ACC NR: AP6002682

4-hr stays in an altitude chamber under gradually decreasing pressure. Actomyosin was then extracted from the femur muscles of decapitated experimental and control animals, and tests (described in detail in the original article) were performed. Experimental results showed that the following properties of actomyosin from control and conditioned animals were identical: a) the amount of extractable actomyosin, b) the specific and characteristic viscosity of actomyosin, c) the content of sulfhydryl groups, and d) the resistance to urea denaturing. Thus, the nonspecifically increased resistance of the skeletal musculature of hypoxic-conditioned rats observed in previous experiments is not related to the properties of actomyosin studied. However, in hypoxic-conditioned animals, the rate of recovery of actomyosin viscosity after the influence of ATP was significantly greater than the recovery rate in control animals. The mechanism of this phenomenon is not yet understood. Orig. art. has: 2 figures and 1 table. [JS]

SUB CODE: 06/ SUBM DATE: 25Sep64/ ORIG REF: 012/ OTH REF: 004
ATD PRESS: 4154

Card 2/2 QC

L 11785-66 EWT(1)/FS(v)-3 SCT3 DD

ACC NR: AP6001111

SOURCE CODE: UR/0239/65/051/012/1474/1477

AUTHOR: Shumubura, A. A.; Barbashova, Z. I.; Moskalenko, Yu. Ye.

ORG: Institute of Evolutionary Physiology im. I. M. Sechenova, AN SSSR, Leningrad
(Institut evolyutsionnoy fiziologii AN SSSR)

TITLE: Cerebral blood flow in hypoxia-adapted rats subjected to acceleration

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 12, 1965, 1474-1477

TOPIC TAGS: acceleration, blood circulation, animal physiology, hypoxia, gravitation, field, dynamic stress, centrifugation

ABSTRACT: Electroplethysmography was employed to study cerebral blood-flow dynamics in rats adapted to hypoxia in a pressure chamber for a month and then subjected to positive and negative horizontal acceleration of up to 2 g for 10–30 sec. Plethysmographic changes in the adapted rats and in control rats exposed to acceleration of 1.2–1.4 g, which causes the blood to flow out of the head, were essentially the same. Above 1.5 g, the controls showed a distinct active physiological reaction directed to normalizing the blood flow in the cranial cavity within 2–5 sec of exposure. An increase in acceleration to 1.8–2.0 g caused the physiological component of the reaction to appear immediately after exposure and increased the volume of blood in the cranial cavity. In the rats adapted to hypoxia, this compensatory physiological reaction appeared much

Cord 1/2

UDC: 612.133

L 11785-66

ACC NR: AP6001111

later, starting with acceleration of 1.8—2.0 g. The respiratory waves on the EPG for adapted animals showed little change following acceleration, whereas over 1.5 g, the amplitude of these waves in the controls decreased substantially. The superior tolerance of acceleration in the adapted rats is indicative of little change in respiration during and after exposure, a sign of marked resistance by cells in the respiratory center of the brain. The authors ascribe the high resistance to horizontal acceleration in the hypoxia-adapted animals to changes in the cerebral blood vessels and in cellular metabolism. These changes include increased oxygen consumption by brain cells with low partial pressure of oxygen, intensification of anaerobic glycolysis, and a nonspecific increase in resistance of the structure of the cellular elements subject to injury. The authors suggest that adaptation to hypoxia might be used as a means of conditioning the body to acceleration. Orig. art. has: 3 figures.

SUB CODE: 06/ SUBM DATE: 30Dec63/ ORIG REF: 008/ [14]
ATD PRESS: 418 D OTH REF: 003

HW
Card 2/2

BALASHOVA, Z.I.; KROFTA, K.; PROCHIVEK, J.; FAJkus, K.; SEPOVSKA, J.;
POUPA, O.

The effect of adrenalectomy on adaptation to hypoxia in the rat.
Changes in haemoglobin concentration and osmotic resistance of
erythrocytes in peripheral blood. Physiol. Bohemoslov. 14 no.4:
324-327 '65.

1. Institute of Evolutionary Physiology and Biochemistry, Academy
of Sciences, Leningrad and Institute of Physiology, Czechoslovak
Academy of Sciences, Prague. Submitted December 16, 1964.

BANDASHOVA, Z.I.; BREYDO, G.Ya.

Changes in the osmotic resistance of erythrocytes in muscular training. Fiziol. zhur. 51 no.5:621-625 My '65.

L. Institut evolyutsionnoy fiziologii imeni Sechenova AN SSSR,
Leningrad.

BABUSHKOVA, Y.L.

Correlation between the resistance of the tissues and that of
the entire organism. Khur. oboz. biokhim. i fizich. i no.4.
325-392 JI-Ag '65.
(MIRA 18:8)

L. Gruppa po izucheniju resistencii organizma v usloviyah
fiziologicheskikh i biochimicheskikh faktorov. Akademiya Nauk SSSR, Leningrad.

L 29190-66

ACC NR: AP6019082

SOURCE CODE: UR/0239/65/051/005/0621/0625

AUTHOR: Barbashova, Z.I.; Breydo, G. Ya.

ORG: Institute of Evolutionary Physiology im. I. M. Sechenov, AN SSSR, Leningrad
(Institut evolyutsionnoy fiziologii AN SSSR)TITLE: Changes in the osmotic resistance of erythrocytes with muscle training

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 5, 1965, 621-625

TOPIC TAGS: rat, hypoxia, hematopoiesis

ABSTRACT: White rats were trained by making them swim for increasing lengths of time in a tank filled with water at a temperature of 30°C. The training was continued for 4 months. The degree of training acquired was determined on the basis of the increased general resistance of the rats shown by the capacity to swim with a load, change in body temperature (as indicated by the rectal temperature) immediately after swimming with a load, and resistance to hypoxia produced by rapid reduction of the pressure to 134 mm in a chamber in which the rats were placed. The osmotic resistance of the erythrocytes (the resistance of erythrocytes to hemolysis in NaCl solutions containing 0.36-0.56% NaCl) was higher for the rats trained in muscular effort than for control rats. In the case of rats that had been overtrained and showed a decrease in general resistance, the osmotic resistance of erythrocytes did not increase but, on the contrary, often decreased. No changes in the hemopoiesis of rats with an increased osmotic resistance of erythrocytes were found. It was established in former work by Barbashova that the osmotic resistance of erythrocytes increased in rats that were trained to withstand the effects of hypoxia. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 06/ SUBM DATE: 30Dec63/ ORIG REF: 002
Card 1/1 B/L G UDC: 612.111.1713
22

EMBASINOV, G. N.

Electric Relays

Elimination of vibration of the armature of
the relay EN-52A. Elek. stia. 23 no. 2, 1952.
Inzh.

Monthly List of Russian Accessions, Library
of Congress, April 1952. UNCLASSIFIED.

BARBASOV, A., polkovnik; AKKERMAN, B., dotsent

We raise the ideological standard of general studies. Komm. Vooruzh.
Sil l no.5:67-69 D '60. (MIRA 14:8)

1. Sekretar' partbyuro upravleniya Leningradskogo vysshego
obshchevoyskovogo komandnogo uchilishcha imeni S.M.Kirova (for
Barbasov). 2. Sekretar' partorganizatsii obshchenauuchnykh
kafedr Leningraskogo uchilishcha im. Kirova (for Akkerman).
(Military education)

BARBASOV, V. A. and KUZNETSOV, M. I.

"Oscillation Mechanism of a Triode With a Damping Field".
Uch. Zap. Gor'kovsk. un-ta, 27, pp 84-105, 1954

Electron motion in damping field "grid-plate" of a flat triode is theoretically analyzed. It is proved that periodic variations of space charge occur in the specified electrode space at certain operating conditions of the tube. These oscillations are independent of the circuit and generated even if the high-frequency tube is shortcircuited. This phenomenon explains the generation of high-frequency oscillations by a triode with a damping field. (RZhFiz, No 10, 1955)

SO: Sum no 812, 6 Feb 1956

BARBAT, I.

The action of heteroxatin or 2,4-D, pure salts or associated with vitamin B₁, on the productivity of sugar beets and on the rooting of grape sprouts. I. Barbat, S. Cernoi, and E. Răducan. *Cercus științ. și tehn. științelor Agricole* 6, 127-34 (1956).—The treatment of the seeds of sugar beets with heteroxatin and with 2,4-D, pure or mixed with vitamin B₁, stimulates the growth of the plants and results in a crop increase of 19-20%. Best results are obtained with 10 mg., and 20 mg. per 1. The rooting of grape sprouts is stimulated by heteroxatin + vitamin B₁ and by 2,4-D + vitamin B₁. T. Z. Deacsy

2

BARBAT T.

RUMANIA/Chemical Technology. Chemical Products and Their
Application - Pesticides

I-7

- Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12447
- Author : Palfy Fr., Barbat I., Puia I.
- Title : Contribution to the Veterization of the Action and Effectiveness of 2,4-D herbicide
- Orig Pub : Contributii la cunosterea actiunii si eficacitatii ierbicidului 2,4-D. Probl. agric., 1956, 8, No 5, 60-66
(Rumanian; Russian and French summaries)
- Abstract : A dosage of 2,4-D of 1 kg/hectare being herbicidal to dicotyledonous weeds and stimulating to grain crops increases the harvest yield of the latter.

Card 1/1

- 54 -

COUNTRY	: USSR	M
CATEGORY	: Cultivated Plants. Grains.	
ABSTRACT JOUR.	: RZBiol., No.21, 1958, No. 95938	
AUTHOR	: Barbat,I.; Puya,I.	
INST.	: --	
TITLE	: The Effect of Light on the Development of Corn	
ORIG. PUB.	: Mezhdunar. s.-kh. zh., 1957, No.3, 99-106	
ABSTRACT	: Data from studies made by the Krutsk Agricultural Institute of the Rumanian People's Republic. In the northern districts of Rumania the photoperiod lasts 10 days in the Khan-gansk variety, 15 in Calben Timpuru; 20 days for Portokaliu de Tyrgu Frumos, Ariyeshan and Lapushnyak. Receptivity to the prolonged day appeared from the moment the plant turned green, ordinarily 3-4 days after the seeds were soaked. Accelerated plant development	

CARD: 1/4

Country : M
CATEGORY :

ABS. JOUR. : RZBiol., No. 21, 1950, No. 95938

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : controlled according to the phases of morphogenesis of the staminate flower, reached its maximum when the light day was cut to 10-12 hours. A reduction in the intensity of illumination by 60-70% by shading with gauze prolonged the vegetative period by 5-7 days, and longer in late maturing varieties. When the seeds were vernalized in sand with moisture unfavorable for root growth, a temperature of 20° and humidity of 90-100%, no

CARD: 2/4

COUNTRY :
CATEGORY :

ASS. JOUR. : RZBiol., No. 21, 1958, No. 95938

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : differences were discovered in the rate of development in comparison with non-vernalized plants. The duration of the vegetative period was not determined by length of stage changes. To diagnose the rate of maturation in varieties and hybrids it is recommended that one study the duration of various stages in the morphogenesis of the staminate flower, in the first place - the stage of lengthening of the vegetative cone of the stem. The technique

CARD: 3/4

Country :	M
CATEGORY :	CULTIVATED PLANTS.
ABSTRACT JOUR. :	RZBiol., No.21, 1958, No. 95938.
AUTHOR :	
INST. :	
TITLE :	
CRIG. PUB. :	
ABSTRACT :	of analysis is described (by both methods). --D. Ye. Kravtsova

CARD: 4/4

COUNTRY	:	RUMANIA
CATEGORY	:	Cultivated Plants. Cereals.
ABS. JOUR.	:	RZhBiol., No. 1958, No. 104626
AUTHOR	:	Puis, I., Barbat, I.
INST.	:	-
TITLE	:	On the Study of Frost Resistance in Winter Barley.
CRIG. PUB.	:	Studii si cercetari ag on. Acad. RSR Fil. Cluj, 1957, 8, No. 1-2, 43-73
ABSTRACT	:	The most frost resistant varieties are Yanetskiy, El'figer, Manderfer and Chened 396.

M

Card: 1/1

19

COUNTRY	Romania	M
CATEGORY	Cultivated Plants. Grains.	
ASS. JOUR.	: RZBiol., No. 21, 1958, No. 95937	
AUTHOR	Barbat, I.; Puta, I.	
LISP.	I-	
TITLE	: A Study of the Stages of Morphogenesis of Corn Staminate Flowers, a Method of Determining the Maturing Rate in Corn Varieties *	
ORIG. PUB.	: Probl. agric., 1957, 9, No.10, 12-22	
ABSTRACT	: Data of the Institute of Agronomy in Cluj. The basic stages in morphogenesis are described and an analysis is made of the possibility of determining the rate of maturing according to the duration and sequence of these stages. The period of stem apical meristem formation is especially important. Two methods of determination are suggested: observations are conducted throughout the * and Hybrids	
CARD:	1/2	

Country :	M
CATEGORY :	
ABSTRACT JOUR. :	REHICL., No. 21, 1958, No. 95937
AUTHOR :	
LIST:	
TITLE:	
ORIG. PUB. :	
ABSTRACT :	entire period to determine the dates when the various stages begin (method 1) or only in the period when incipient spikes form (method 2). The vegetative cone is treated with concentrated ethyl alcohol.---A.F. Khlystova
CARD:	2/2

RUMANIA/Cultivated Plants - Grains.

M.

Abs Jour : Ref Ziar - Biol., No 10, 1958, 44043

Author : Ivin, I., Barbat, I., Sanciu, Otilia

Inst : -

Title : A Study of Frost Resistance in Winter Barley.

Orig Pub : Probl agric, 1957, 9, No 3, 26-36.

Abstract : Data from 1955-1957 on the studies of frost resistance in the winter barley varieties Chindia 386, Populazioa Cibin, Kluzn 125 and control Chindia 117. Low temperature processes accumulation of protective substances in the cell sap. It also increases water permeability of the protoplasm and the degree of hydrophilic quality in colloids. The processes of hardening (against frost) in winter barley and winter wheat are similar but barley does not attain the degree of frost resistance in wheat. -- A.F. Klystochva.

Card 1/1

BARBAT, I.

SURNAME, Given Names

Country: Rumania

(Q)

Academic Degrees: -not given-

Affiliation: -not given-

Source: Bucharest, Comunicările Academiei Republicii Populare Române,
Vol XI, No 12, 1961, pp 1497-1502.

Data: "The Influence of Gibberelline on the Development of Autumn Oats
in the Early Phases."

Authors:

POP, Em., -Academician-
BARBAT, I.

POP, Em., acad.; BARBAT, I.

Influence of gibberellin on the development of the winter barley
in its early phases. Comunicarile AR 11 no.12:1497-1502 D '61.

BARBAT, I.

Influence of the light and gibberellin on the vernalization stage of the wheat Triticum durum var. hordeiforme. Comunicarile AR 12 no. 1:125-128 Ja '62

1. Comunicare prezentata de academician Em. Pop.

BARBAT, I.; OCHESANU, C.

Role of leaves in the photoperiodic reaction. Studii cerc biol
s. bot 16 no. 2:99-104 '64.

1. Laboratory of Cytophysiology, Growth, and Development, Center
of Biological Research, Cluj.

POP, E., acad.; STOI, I.; OCHERBANU, Constanta

Gibberellin action in the germination stage of winter wheat.
Studii biol Cluj 14 no.1:11-17 '63.

1. Center of Biological Research, Romanian Academy, Iasi Branch.

GROZEA, Gh., correspondent; FERALU, Ion, correspondent; SAMBAT, Ioan, correspondent;
FLORIAN, H., correspondent; IONIȚIU, Florin, Int. correspondent; LAZĂRU,
Gheorghe, correspondent.

The workers received their new tasks with enthusiasm. Genstr Buc 17
no.782:1 5 Ja '65.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103530012-6

DARBAT,

The pyrite from Valas Lisava, of the Vineria Mine
mines at Dargaville, Tivoli, Darbat, Dari and Socinje,
for Inst. Geo. Kommerz. 23-7-1945-46 (Pub. 1952).
Analyses are presented for Fe, S, SiO₂, Al₂O₃, Mn, Cu, CaO,
and Pb.
Werner Jacobson

2

ATT

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103530012-6"

NITULESCU, M.; MOCIORNITA, C.; DINCA, A.; VIRCOL, L.; VOICU, Gh.; MIHAILESCU,
Gh.; NAE, D.; BARBAT, V.; MIHAIL, M.; MUSETESCU, P.; CORBAN, V.;
MATEESCU, M.

Monograph on the hydrology of the hydrographic basins of the Iza,
Viseu, Sapinta, Tur Rivers.

VOINAROSKI, Werner, ing.; BARBAT, Victor, ing.

Ways of cutting down the metal consumption in forged
pieces. Metalurgia constr mas 13 no. 3: 241-248 Mr '61.

ZHOSAN, N.; BARBAT, Yu.; PUYA, I.

Comparative study of the development of Chenod 396 (dual-purpose)
winter barley and Cluj 123 spring barley. Fiziol.rast. 8 no.5:
619-625 '61. (MIRA 14:10)

1. Department of Plant Physiology of the Agricultural Institute,
Kluj, Rumania.

(Barley)

BENPATSAK

bio/geo/central biology + genetics.

4-5

Author : Prof. Dr. R. Bial., Inst. of Bot., Warsaw, Poland
Title : Parboldzkiy
Date : -
Topic : New Paths in the Knowledge of Heredity
Orig. Pub : Postepy nauk roln., 1956, 3, No 4, 3-15. discuss. p. 1.

Abstract : A report delivered at the Polish Academy of Sciences in December 1955. The author presents experimental data which show that different varieties of the same plant species differ from one another in biochemical characteristics (alkaloids, protein, carbohydrate content, etc.). A chromatographic analysis shows that morphologically homogeneous hybrids can be heterozygous in biochemical and physiological properties. During cleavage, single descendants may surpass parents in some properties. The question of evolutionary paths is discussed. 9 individuals participated in the discussion.

Card 1/1

Barbatskiy, S.

POLAND/General Division. General Problems. Philosophy. A-1
Methodology.

Abs Jour : Ref Zhur-Biologiya, No 20, 1957, 85007
Author : S. Barbatskiy
Inst :
Title : Some Difficult Problems on the Borderline
Between Mathematics, Biology and Agriculture
Orig Pub : Postepy nauk roln., 1956, 3, No 2, 37-46

Abstract : When studying variation phenomena and pro-
cessing experimental data from biological
investigations and experimental agriculture,
the question often arises about the meaning
of the measurements. The sources of errors
reducing the value of the statistical in-
vestigations and leading to incorrect re-
sults are considered. Statistical evaluation

Card 1/2

POLAND/General Division. General Problems, Philosophy. A-1
Methodology.

Abs Jour : Ref Zhur-Biologiya, No 20, 1957, 85007

Abstract : of agricultural experiments cannot be used as the only criterion of their reliability. The importance of limiting generalizations obtained from statistics is pointed out. According to the author, the statistical results of agricultural experiments have to be subjected to a biological interpretation.

Card 2/2

COUNTRY : RUMANIA
CATEGORY : Chemical Technology, Chemical products and their
Applications. Chemical Processing of Natural
ABS. JOUR. : RZhKhim., No 17, 1959, No. 6*248

AUTHOR : Barbutu, G.; Popa, T.; Poiaresian, I.
INSTITUTE : -
TITLE : Investigation of the Effect of Cracked Tars on
the Lowering of Pour Point of Diesel Oil.
ORIG. PUB. : Petrol si gusa, 1958, 3, no 10, 467-468

ABSTRACT : In order to improve pour point characteristics
of diesel oil it is proposed to add 0.0-2.2% of
cracked tars. In so doing the pour point of diesel
is lowered.

*Gases and Petroleum, Motor and Rocket Fuels,
Lubricants.

Card: 1/1

BARBATU, Gh., PALADI, V.

Method of determining the dropping point of fuel oils.
Petrol si gaze 15 no. 2; 560 36; J1 '64.

BARBATU, I. Gheorghe, ing.; RANETI, Radian

A method for determining by calculation the octane number for some
nonethylated gasolines. Petrol si gaze 13 nr.11:509-510 N '62.

BARBATU, Gh., ing.

Considerations on the applicability field of relations regarding
the graphic or calculated determination of the cetane number in
diesel oils. Petrol si gaze 14 no.8:402-406 Ag '63.

BARBAUMOV, N. I.

PROCESSES AND PROPERTIES INDEX

R

A-1

Photo-effect in cuprite crystals. N. I. BARBAUMOV, D. L. SHUTAK, and A. F. ZIVCHINSKI (Physikal. Z. Sovietunion, 1934, 5, 666-675).—It is more difficult to establish a barrier-layer photo-effect in cuprite than in a Cu₂O plate. The effect is more a vol. than a layer effect. CH. ABS. (e)

ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION

SECOND EDITION

SEARCHED

INDEXED

SERIALIZED

FILED

BARBAUMOV, N. I.

PROCESSES AND PROPERTIES INDEX

R-1

Variation with temperature of the reverse photo-electric effect in cuprite crystals. N. J. BARBAUMOV and R. G. JANSON (Physikal. Z. Soviet. Union, 1939, 9, 345-351).—Measurements were made with natural crystals between -55° and 84°. In the region >6600 Å. the temp. behaviour is different from the normal effect. For the region <6100 Å. the variation with temp. is the same as with the normal effect.
A. E. M.

ASML-1A METALLURGICAL LITERATURE CLASSIFICATION

EXCERPT FROM

SEARCHED

INDEXED

FILED

SEARCHED

INDEXED

FILED

BARBAUMOV, N.

BC

PROCESSES AND PROPERTIES INDEX

IND AND SIM CRYSTALS

R - 1

Influence of double illumination on the crystal
photo-effect of cuprous oxide. N. J. BARBAUMOV

and R. G. Jansca (Physikal. Z. Sovietunion, 1936, 9,
551-562; see preceding abstract).—The spectral
distribution between 4500 and 7600 Å. of the photo-
effect in a Cu₂O single crystal has been investigated
with and without simultaneous illumination in direc-
tions parallel, opposite, or perpendicular to the
primary by λλ 5400, 6200, and 7200 Å., the photo-
effect of the secondary beam alone being compensated.
A dependence on the direction of the secondary beam
was observed for λλ 5400 and 6200 Å. combined with
a primary λ > 5800 Å. The variation with intensity
of the secondary beam has been investigated for the
primary-secondary pairs: 6800-5400, 5400-6200,
6200-6200, and 7600-7200 Å. Saturation at high
intensities was observed when the secondary λ was
that of the primary.

O. D. S.

ASH-1A METALLURGICAL LITERATURE CLASSIFICATION

BARBAUMOV, N. O.

JA

PROGRESS AND EXPERTISE DATA

360 AND 370 DEGREES

2439. Influence of Auxiliary Irradiation on the Crystal Photo-electric Effect of Cuprous Oxide. N. O. Barbaumow and R. G. Jensch. *Phys. Zeits. d. Sowjetunion*, 9, 1, pp. 94-98, 1936. In German.
A concise account is given of experiments on cuprite crystals irradiated by an auxiliary transverse beam of monochromatic light from a 12-W lamp in addition to the main irradiation by a monochromatic beam from a 1000-W lamp. It is observed that the photoelectric effect of both beams together may be greater than the sum of the effects of the beams separately. Curves are given showing the photoelectric effect plotted against the wavelength of the main beam (range 440 to 760 m μ) for the cases where there is no auxiliary irradiation, and where the auxiliary beam has each of the wave-lengths 640, 680 and 720 m μ in turn, the photoelectric effect due to the auxiliary beam alone being always suitably compensated. L. A. W.

AT&T SLA METALLURGICAL LITERATURE CLASSIFICATION

1300W 1310 1311W

FROM BOMBING
REFLECT ON DAY 131

BARBAYANOV, Konstantin Aleksandrovich; LEMARIN'YE, Konstantin
Petrovich; MAKAROVA, T.I., kand. tekhn. nauk, spets. red.;
NOZDRINA, V.A., red.; SATAROVA, A.M., tekhn. red.

[Fish canning] Proizvodstvo rybnykh konservov. Moskva, Pishche-
promizdat, 1961. 407 p. (MIRA 15:3)
(Fish, Canned)

31052. PARBEL', I. E.

Nekotorye osobennosti techeniya i iskhody operatsiy travmaticheskikh
Katarakt. Vestnik oftalmologii, 1949, No. 5, s. 11-14

Dr. medical ci. Mbr., yz. filia, Central'n. med. Inst. im. I. P.
Pavlov, -cl949-

DYMSHTZ, L. A., BETARCHUKOV, R. A., BARBEL', I. E., GRIGOR'EVA, V. I.

The distinguished Russian scientist Vasillii Vasilevich Chirkovskii.
Vest. oft. 29:3, May-June 50. p. 5-8

CML 19, 5, Nov., 1950

BAREBELL I.E.

KNYAZEVA, A.A.; BAREBELL, I.E.

Formation of conditioned reflexes to a minimal intensity of light stimulation. Probl. fiziolog. opt. no.10:112-123 '52. (MLRA 7:11)

1. Klinika glaznykh bolezney i Laboratoriya fiziologii analizatorov pri klinike bolezney ukha, gorla i nosa 1-go Leningradskogo Meditsinskogo instituta im. I.P.Pavlova. Zav. klinikoy deystvitel'nyy chlen AMN SSSR prof. V.V.Cherkovskiy, konsul'tant prof. G.V.Gershuni.

(LIGHT, effects,

conditioned reflex to minimal light stimulation)

(REFLEX, CONDITIONED,

prod. in minimal light stimulation)

BARBOL', I. E.

"Investigation of Color Perception With Pigment Samples Under Fluorescent Light,"
Probl. Fiziol. Optiki, Moscow, No 8, pp 167-171, 1953

The author investigated color perception under fluorescent, incandescent, and natural light. A group of normal trichromats showed conformity under natural and artificial light. Study of 35 people with ab-normal color vision showed conformity only in some cases under natural and incandescent light. Data obtained under fluorescent light conformed nearly completely with those obtained in natural light. Incandescent lamps showed up more clearly defects of color perception of deuteranopes and deuteranomaly than in protanopes and in protanomaly. (RZhBiol, No 8, 1954)

SO: Sum, No 606, 5 Aug 55

BARBEL', I.B., doktor meditsinskikh nauk

"Glass and stone splinters in the eye." M.B.Chutko. Reviewed by
I.B.Barbel'. Oft.zhur. 11 no.1:60-61 '56. (MIRA 9:9)
(EYE--FOREIGN BODIES)
(CHUTKO, M.B.)

TRON, Yevgeniy Zhanovich, red.; BARBEL', I.E., red.; RULEVA, M.S., tekhn.
red.

[Problems in neuroophthalmology] Voprosy neirooftalmologii.
[Leningrad] Gos. izd-vo med. lit-ry, Leningr. otd-nie, 1958. 126 p.
(OPHTHALMOLOGY) (MIRA 11:7)

CHUTKO, Mikhail Borisovich, prof.; BARBEL', I.E., red.; CHUMAYEVA,
Z.V., tekhn. red.

[Glass and stone splinters in the eye] Oskolki stekla i kamnia
v glazu. Izd.2., dop. Leningrad, Medgiz, 1961. 150 p.
(KIRA 15:3)
(EYE--FOREIGN BODIES)

KHAYUTIN, Semen Moiseyevich; BARVEL', I.E., red.; SHEVCHENKO, F.Ya.,
tekhn. red.

[Burns of the eyes and their adnexa] Ozhogi glaz i ikh pridatkov.
Leningrad, Nedgiz, 1961. 111 p.

(MIRA 15:7)

(EYE--WOUNDS AND INJURIES)
(BURNS AND SCALDS)

BARBEL', I. E., doktor med. nauk (Leningrad)

Current data on some primary dystrophies of the cornea; survey
of Soviet and foreign literature. Vest. oft. no.2:61-69 '62.
(MIRA 15:4)

(CORNEA--DISEASES)

DASHEVSKIY, Aron Izrailevich; BARBEL', I.E., red.; BUGROVA, T.I.,
tekhn. red.

[Nearsightedness] Blizorukost'. Leningrad, Medgiz, 1962.
147 p. (MIRA 16:3)
(MYOPIA)

RADZIKHOVSKIY, Boris Leonidovich; BARBEL', I.E., red.; KHARASH,
G.A., tekhn. red.

[Myopia] Blizorukost'. Leningrad, Medgiz, 1963. 194 p.
(MIRA 16:7)
(MYOPIA)

MODEL¹, David Markovich; BARBEL¹, I.E., red.

[Brief manual for the medical optician] Kratkii spravochnik meditsinskogo optika. Leningrad, Meditsina, 1965. 159 p.
(MIRA 18:4)

BARREL, Laszlo, dr.

Follow-up examinations with hormone cytological staining techniques.
Orv. hetil. 106 no.14:650-651 4. Apr 1965

1. Fovarosi IV. ker. Arpad Korhaz, Szule-Nobetegosztaly (főorvos:
Lorand, Sander, dr.) es a B.M. Keivin Otto Korhaz Szule- es
Nobetegosztaly (főorvos Falus, Miklos, dr.)

BARBELAT, I.

"Oscillation matrices. Oscillation nuclei and small vibrations of mechanical systems" by F. R. Gantmacher, M. G. Krein. Reviewed by I. Barbelat. Rev math pures 7 no. 4;729-731 '62.

RUSSU, I.G.; VAIDA, Al; BARBELIUC,N.; POP, E.

The terminal nerve apparatus of the vascular reflexogenic zones in experimental hypertension. Rumanian med. rev. 7 no.4:9-12 O-D'63

*

SARDENEC, A.; PAVLICKA, J.

New universal SW 1000 welding tractor. p. 591. (STROJHODNOTY, Vol. 7,
No. 8, Aug 1957, Praha, Czechoslovakia)

SD: Monthly List of East European Accessions (.EMI) 13, Vol. 6, No. 12, Dec 1957. Uncl.

SORU, Eugenia; BARBER, Cella; ISTRATI, Maria; PADURARU-DUMITRESCU, Maria;
PODHORSKI, Eugenia.

Effect of isonicotinic acid hydrazide on mycobacteria. I. Effect on
the enzyme system and chemical structure of the *Bacillus para-*
tuberculosis Grassberger 55. Stud. cercet. inframicrobiol., Bucur.
6 no.3-4:533-564 July-Dec 1955.

(MYCOBACTERIUM

paratuberculosis, eff. of isoniazid on enzyme system
& chem. structure)

(NICOTINIC ACID ISOMERS, eff.

isoniazid, on enzyme system & chem. structure of Myco-
bacterium paratuberculosis)

ISARber, C

✓ Contributions to the study of the antigenic-paratypal viruses. II. A comparative chemical study of the somatic antigens of *Salmonella typhi* (S. typhi) strains. B. Sere, C. Barber, S. Toma, V. Grigoreco, and B. Bogokovski (1952). *Popularna Kuchnia, Studiowisko chemiczne*, 4, 549-63 (1952). — The authors show the results of the chemical analysis of antigens from a few strains of *S. typhi* containing the O, O + VI, O + VII + E (Ty, Ty, Ova, VII) antigen. Two different extrn. methods were applied and an antigenic component of complex charact. was obtained. The chem. analysis has shown that it is composed of a complex polyoxido-protein-sugars acid conta. some lipids. The analysis of each constituent shows some difference depending on the predominance of the antigen O or VII, or the mode of extrn. The polyoxide constituent was analyzed by partition paper chromatography, for the strain with a predominance